

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/IB2004/004292

**Box No. I Basis of the opinion**

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
  - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material:
    - ☐ a sequence listing
    - ☐ table(s) related to the sequence listing
  - b. format of material:
    - ☐ in written format
    - ☐ in computer readable form
  - c. time of filing/furnishing:
    - ☐ contained in the international application as filed.
    - ☐ filed together with the international application in computer readable form.
    - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

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**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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**1. Statement**

Novelty (N)	Yes: Claims	5-7,9
	No: Claims	1-4,8,10
Inventive step (IS)	Yes: Claims	5-7,9
	No: Claims	1-4,8,10
Industrial applicability (IA)	Yes: Claims	1-10
	No: Claims	

**2. Citations and explanations**

**see separate sheet**

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**Box No. VIII Certain observations on the international application**

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The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

**see separate sheet**

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**WRITTEN OPINION OF THE  
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AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/IB2004/004292

**Re Item V.**

- 1 Reference is made to the following documents:

D1 : PATENT ABSTRACTS OF JAPAN vol. 0111, no. 36 (C-419), 30 April 1987 (1987-04-30) & JP 61 272270 A (MITSUBISHI CHEM IND LTD), 2 December 1986 (1986-12-02)

D2 : FR 2 386 589 A (CIBA GEIGY AG) 3 November 1978 (1978-11-03)

D3: US-A-5 929 215 (PEDRAZZI REINHARD) 27 July 1999 (1999-07-27)

D4: WO 02/096994 A (PEDRAZZI REINHARD ; CLARIANT INT LTD (CH); LEHR FRIEDRICH (DE); SCHENE) 5 December 2002 (2002-12-05)

- 2 Document D1 discloses (see examples 2,7,8,14,22) dyestuffs which can be considered as falling under the general definition of claims 1-4, in which the term "substituted" has to be understood in its broadest sense. In the absence of a precised definition of this term (as for example in description page 4, lines 22-30) in the claims, Document D1 is considered as novelty-destroying for the subject-matter of claims 1-4 (Article 33(2) PCT).

- 3 The compounds disclosed in D1 are used for dyeing cellulose fibres (see abstract). The subject-matter of independent claims 8 and 10 also is not new in view of D1.

- 4 The present application deals with acidic monoazo dyestuffs which can be used in the preparation of ink-jet inks as claimed in claim 6. On the other hand the compounds disclosed in D1 are reactive dyes and are not used for the preparation of ink-jet inks. The subject-matter of independent claim 6 is therefore novel.

- 5 Document D2 (see especially page 32, last 2 compounds, but also page 8, lines 24-27, page 10, lines 17-18) discloses acidic monoazo dyestuffs used for dyeing and printing, especially for cellulosic fibres. The compounds claimed in the present application differ from the compounds specifically described in D2 by the choice of substituents X1 and X2 on the triazine ring. However, D2 generally discloses a range of substituents, including for example substituted phenylamino groups, broadly overlapping with the definition of X1 and X2. Moreover in D2 the amino substituents corresponding to X1 and X2 can also have different meanings, as required by the proviso of present claim 1. It seems therefore that

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in the absence of any unexpected effect or property resulting from the choice of substituents, this variation would be considered as an obvious possibility for a skilled person looking for alternative dyes to the dyes of D2 for dyeing or printing cellulosic fibres. No inventive step can be acknowledged for the part of the application relating to this subject (Article 33(3) PCT).

6 In the field of ink-jet printing, however, Documents D3 or D4 can be seen as representing the closest prior art. The compounds disclosed therein are also characterized by the presence of a 3'-triazinylaminobenzoylamino group attached to an acidic monoazo chromophore. The claimed compounds differ from the prior art dyestuffs by several structural features such as the number of sulfonic acid groups, the attachment position of the benzoylamino group as well as the substitution pattern of the diazo moiety. It seems therefore that an inventive step could be acknowledged for the part of the claimed subject-matter relating to new compounds used in ink-jet printing.

**Re Item VIII.**

1 In dependent claims 2-4, "phenyl" is listed as a possible meaning for the substituents R3 and R4. This possibility is not given in claim 1. This results in unclarity about the scope of the claimed subject-matter (Article 6 PCT).

2 The definition of R3 and R4 in claim 1, lines 20-22 (and corresponding passages in claims 2-4), especially the part "in addition to N, O or S" also introduces unclarity since it is not evident to which atom O or S it refers to.

3 The compound of example 7 appears to fall outside the scope of the claims since the group X2 contains a substituted alkyl group, which is not foreseen in the definition of claim 1 (see line 22). This inconsistency between the claims and the description leads to doubt concerning the matter for which protection is sought, thereby rendering the claims unclear, Article 6 PCT.

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